



The impact of climate change and aeroallergens on children's health

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Abstract:

There are unequivocal data that climate change is occurring and that there are resulting health impacts. Climate change can affect the prevalence and severity of allergic and respiratory disorders through projected increases in the temporal and spatial distribution and concentrations of some aeroallergens. This study was designed to critique and summarize existing knowledge on asthma-related impacts of aeroallergen exposure on children in the United States and to provide suggestions about reducing the negative impacts of climate change through increasing education, adapting current management strategies, and modifying distribution channels. A review and synthesis of published literature was performed. Five studies identified evaluated the relationship between aeroallergens and particular symptoms and six evaluated use of the emergency department and hospital care for asthma. Little is known about the relationship between aeroallergens and particular asthma symptoms. However, overall, there appears to be evidence that weed pollen is significantly associated with asthma exacerbations and use of emergency and hospital services. Activities that can help mitigate the impact of additional climate change-induced respiratory disease include continued research, physician and patient education, optimizing production and distribution, and actively considering the budgetary impact of increased prevalence and severity of respiratory disease. Although more research is needed on aeroallergens and respiratory disease, existing studies suggest that it will be essential to consider the health impacts on children. Strategies to reduce the impacts should be developed and implemented now.

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Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Air Pollution

Air Pollution: Allergens

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

Climate Change and Human Health Literature Portal



resource focuses on specific location

United States

Health Impact:

specification of health effect or disease related to climate change exposure

Respiratory Effect

Respiratory Effect: Asthma

Population of Concern: A focus of content

Population of Concern:

populations at particular risk or vulnerability to climate change impacts

Children

Resource Type:

format or standard characteristic of resource

Review

Timescale:

time period studied

Time Scale Unspecified